

LAMPIRAN

Lampiran 1

Uji Stasioneritas Data

EMISI

LEVEL

Null Hypothesis: LOG(EM) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-0.365939	0.9035
Test critical values: 1% level	-3.653730	
5% level	-2.957110	
10% level	-2.617434	

*MacKinnon (1996) one-sided p-values.

FIRST DIFFERENCE

Null Hypothesis: D(LOG(EM)) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.240060	0.0002
Test critical values: 1% level	-3.661661	
5% level	-2.960411	
10% level	-2.619160	

*MacKinnon (1996) one-sided p-values.

INFLASI

LEVEL

Null Hypothesis: IN has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-2.028782	0.2737
Test critical values: 1% level	-3.653730	
5% level	-2.957110	
10% level	-2.617434	

*MacKinnon (1996) one-sided p-values.

FIRST DIFFERENCE

Null Hypothesis: D(IN) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-5.870508	0.0000
Test critical values: 1% level	-3.661661	
5% level	-2.960411	
10% level	-2.619160	

*MacKinnon (1996) one-sided p-values.

KURS

LEVEL

Null Hypothesis: LOG(KR) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	0.924937	0.9946
Test critical values: 1% level	-3.653730	
5% level	-2.957110	
10% level	-2.617434	

*MacKinnon (1996) one-sided p-values.

FIRST DIFFERENCE

Null Hypothesis: D(LOG(KR)) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-4.761387	0.0006
Test critical values: 1% level	-3.661661	
5% level	-2.960411	
10% level	-2.619160	

*MacKinnon (1996) one-sided p-values.

SBIS

LEVEL

Null Hypothesis: SB has a unit root

Exogenous: Constant

Lag Length: 1 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-1.283007	0.6247
Test critical values: 1% level	-3.661661	
5% level	-2.960411	
10% level	-2.619160	

*MacKinnon (1996) one-sided p-values.

FIRST DIFFERENCE

Null Hypothesis: D(SB) has a unit root

Exogenous: Constant

Lag Length: 0 (Automatic - based on SIC, maxlag=8)

	t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic	-3.154235	0.0328
Test critical values: 1% level	-3.661661	
5% level	-2.960411	
10% level	-2.619160	

*MacKinnon (1996) one-sided p-values.

Lampiran 2

Uji Panjang Lag

VAR Lag Order Selection Criteria

Endogenous variables: D(LOG(EM)) D(IN) D(LOG(KR))

D(SB)

Exogenous variables: C

Date: 12/03/18 Time: 13:57

Sample: 2016M01 2018M09

Included observations: 28

Lag	LogL	LR	FPE	AIC	SC	HQ
0	137.7828	NA	8.32e-10*	-9.555915	-9.365600*	-9.497733*
1	147.2242	15.51091	1.35e-09	-9.087445	-8.135870	-8.796539
2	157.3707	13.77024	2.22e-09	-8.669337	-6.956503	-8.145707
3	178.6814	22.83292	1.88e-09	-9.048675	-6.574581	-8.292320
4	212.2715	26.39217*	8.56e-10	-10.30511*	-7.069753	-9.316027

* indicates lag order selected by the criterion

LR: sequential modified LR test statistic (each test at 5% level)

FPE: Final prediction error

AIC: Akaike information criterion

SC: Schwarz information criterion

HQ: Hannan-Quinn information criterion

Lampiran 3

Uji Stabilitas VAR

Roots of Characteristic Polynomial

Endogenous variables: D(LOG(EM)) D(IN) D(LOG(KR)) D(SB)

Exogenous variables: C

Lag specification: 1 4

Date: 12/03/18 Time: 13:58

Root	Modulus
0.349531 - 0.899430i	0.964959
0.349531 + 0.899430i	0.964959

0.933964 - 0.056607i	0.935678
0.933964 + 0.056607i	0.935678
-0.167548 - 0.886943i	0.902630
-0.167548 + 0.886943i	0.902630
0.666648 - 0.540954i	0.858516
0.666648 + 0.540954i	0.858516
-0.708857 - 0.479405i	0.855749
-0.708857 + 0.479405i	0.855749
-0.591271 - 0.570869i	0.821884
-0.591271 + 0.570869i	0.821884
-0.684476	0.684476
-0.035002 - 0.633283i	0.634250
-0.035002 + 0.633283i	0.634250
-0.570707	0.570707

No root lies outside the unit circle.
VAR satisfies the stability condition.

Lampiran 4

Uji Kointegrasi

Date: 12/03/18 Time: 13:59
Sample (adjusted): 2016M06 2018M09
Included observations: 28 after adjustments
Trend assumption: Linear deterministic trend
Series: D(LOG(EM)) D(IN) D(LOG(KR)) D(SB)
Lags interval (in first differences): 1 to 3

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.928859	105.1497	47.85613	0.0000
At most 1 *	0.498995	31.14320	29.79707	0.0348
At most 2	0.342503	11.79133	15.49471	0.1672
At most 3	0.001802	0.050491	3.841466	0.8222

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level
* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.928859	74.00651	27.58434	0.0000
At most 1	0.498995	19.35187	21.13162	0.0871
At most 2	0.342503	11.74084	14.26460	0.1208
At most 3	0.001802	0.050491	3.841466	0.8222

Max-eigenvalue test indicates 1 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

Lampiran 5

Uji Kausalitas Granger

Pairwise Granger Causality Tests

Date: 12/03/18 Time: 14:01

Sample: 2016M01 2018M09

Lags: 4

Null Hypothesis:	Obs	F-Statistic	Prob.
IN does not Granger Cause LOG(EM)	29	0.73307	0.5801
LOG(EM) does not Granger Cause IN		0.31659	0.8635
LOG(KR) does not Granger Cause LOG(EM)	29	0.78961	0.5455
LOG(EM) does not Granger Cause LOG(KR)		0.40682	0.8015
SB does not Granger Cause LOG(EM)	29	2.01533	0.1310
LOG(EM) does not Granger Cause SB		0.57168	0.6863
LOG(KR) does not Granger Cause IN	29	0.87211	0.4979
IN does not Granger Cause LOG(KR)		0.82349	0.5256
SB does not Granger Cause IN	29	0.92647	0.4683
IN does not Granger Cause SB		1.16590	0.3554
SB does not Granger Cause LOG(KR)	29	1.22542	0.3315
LOG(KR) does not Granger Cause SB		1.94099	0.1428

Lampiran 6

Uji VECM

Vector Error Correction Estimates
 Date: 12/03/18 Time: 14:02
 Sample (adjusted): 2016M06 2018M09
 Included observations: 28 after adjustments
 Standard errors in () & t-statistics in []

Cointegrating Eq:	CointEq1			
LOG(EM(-1))	1.000000			
IN(-1)	-0.208374			
	(0.03157)			
	[-6.60012]			
LOG(KR(-1))	-7.745243			
	(2.20588)			
	[-3.51118]			
SB(-1)	-0.159605			
	(0.03244)			
	[-4.92077]			
C	63.37994			

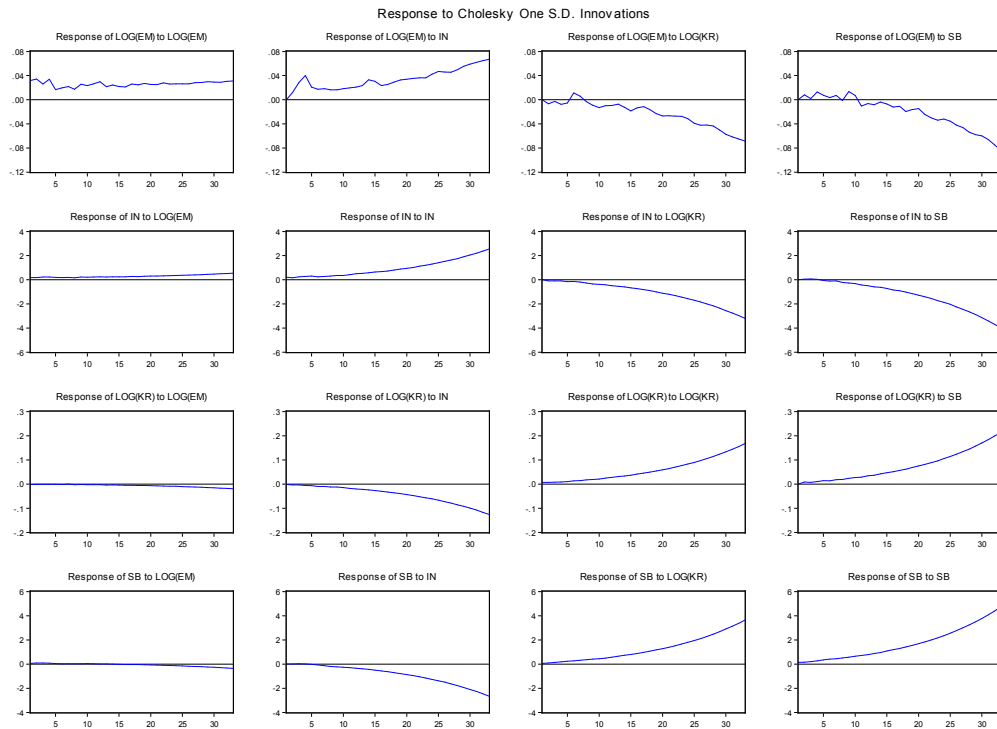
Error Correction:	D(LOG(EM))	D(IN)	D(LOG(KR))	D(SB)
CointEq1	-0.279436	1.644837	0.120010	-0.148629
	(0.12817)	(1.15084)	(0.02914)	(0.60583)
	[-2.18026]	[1.42925]	[4.11849]	[-0.24533]
D(LOG(EM(-1)))	-0.080903	-1.140322	-0.131220	0.738681
	(0.17713)	(1.59050)	(0.04027)	(0.83728)
	[-0.45674]	[-0.71696]	[-3.25839]	[0.88224]
D(LOG(EM(-2)))	-0.537006	-2.805729	-0.154905	-0.253865
	(0.16392)	(1.47186)	(0.03727)	(0.77483)
	[-3.27608]	[-1.90625]	[-4.15656]	[-0.32764]
D(LOG(EM(-3)))	-0.440610	-3.124596	-0.085572	-0.140515

	(0.16481)	(1.47987)	(0.03747)	(0.77904)
	[-2.67346]	[-2.11140]	[-2.28373]	[-0.18037]
D(LOG(EM(-4)))	-0.351675	-2.450922	-0.134811	-0.925675
	(0.16647)	(1.49475)	(0.03785)	(0.78688)
	[-2.11258]	[-1.63969]	[-3.56198]	[-1.17639]
D(IN(-1))	-0.019368	-0.090016	0.009095	0.008052
	(0.02872)	(0.25785)	(0.00653)	(0.13574)
	[-0.67448]	[-0.34910]	[1.39303]	[0.05932]
D(IN(-2))	0.033266	0.265886	0.012531	0.120280
	(0.02658)	(0.23863)	(0.00604)	(0.12562)
	[1.25172]	[1.11420]	[2.07393]	[0.95746]
D(IN(-3))	0.065691	0.326216	-0.001303	-0.034825
	(0.02377)	(0.21340)	(0.00540)	(0.11234)
	[2.76405]	[1.52864]	[-0.24113]	[-0.30999]
D(IN(-4))	-0.050319	0.196075	0.004515	-0.057772
	(0.02479)	(0.22257)	(0.00564)	(0.11717)
	[-2.03005]	[0.88095]	[0.80123]	[-0.49307]
D(LOG(KR(-1)))	-3.641581	-3.526502	0.524761	4.419215
	(1.07155)	(9.62172)	(0.24362)	(5.06514)
	[-3.39843]	[-0.36651]	[2.15398]	[0.87248]
D(LOG(KR(-2)))	-2.082059	-2.975004	0.271043	4.434013
	(0.83632)	(7.50950)	(0.19014)	(3.95320)
	[-2.48956]	[-0.39617]	[1.42548]	[1.12163]
D(LOG(KR(-3)))	-3.018805	-3.314915	0.141446	6.237914
	(0.69325)	(6.22490)	(0.15762)	(3.27695)
	[-4.35456]	[-0.53253]	[0.89741]	[1.90357]
D(LOG(KR(-4)))	-1.248110	-4.741605	-0.260477	3.156004
	(0.76731)	(6.88988)	(0.17445)	(3.62702)
	[-1.62660]	[-0.68820]	[-1.49311]	[0.87014]
D(SB(-1))	0.106308	0.067918	0.044654	0.202254
	(0.05568)	(0.50000)	(0.01266)	(0.26321)
	[1.90914]	[0.13584]	[3.52715]	[0.76841]
D(SB(-2))	0.090681	1.039736	-0.009569	-0.069109
	(0.05975)	(0.53650)	(0.01358)	(0.28243)
	[1.51771]	[1.93800]	[-0.70439]	[-0.24470]

D(SB(-3))	0.072342 (0.06444) [1.12265]	0.164105 (0.57861) [0.28362]	0.031148 (0.01465) [2.12607]	0.201076 (0.30460) [0.66014]
D(SB(-4))	0.032204 (0.06813) [0.47267]	-0.562437 (0.61178) [-0.91934]	0.022603 (0.01549) [1.45917]	-0.040861 (0.32206) [-0.12688]
C	0.091169 (0.01560) [5.84453]	0.250731 (0.14007) [1.79008]	0.015340 (0.00355) [4.32526]	-0.026135 (0.07374) [-0.35444]
R-squared	0.872139	0.641416	0.832401	0.767004
Adj. R-squared	0.654774	0.031822	0.547482	0.370910
Sum sq. resids	0.010100	0.814370	0.000522	0.225683
S.E. equation	0.031781	0.285372	0.007226	0.150227
F-statistic	4.012331	1.052202	2.921536	1.936422
Log likelihood	71.25308	9.795358	112.7277	27.76135
Akaike AIC	-3.803791	0.586046	-6.766266	-0.697239
Schwarz SC	-2.947374	1.442463	-5.909848	0.159178
Mean dependent	0.026305	-0.016071	0.003659	-0.003214
S.D. dependent	0.054090	0.290023	0.010741	0.189406
Determinant resid covariance (dof adj.)		3.53E-11		
Determinant resid covariance		5.74E-13		
Log likelihood		235.6728		
Akaike information criterion		-11.40520		
Schwarz criterion		-7.789218		

Lampiran 7

Uji Impulse Response



Response of LOG(EM):				
Period	LOG(EM)	IN	LOG(KR)	SB
1	0.031781	0.000000	0.000000	0.000000
2	0.034351	0.011804	-0.006812	0.007989
3	0.026105	0.028436	-0.002937	0.001961
4	0.033910	0.039995	-0.007606	0.012737
5	0.016774	0.020783	-0.005362	0.007392
6	0.019565	0.017373	0.011146	0.003451
7	0.021869	0.018250	0.005818	0.007170
8	0.017375	0.016246	-0.003202	-0.001408
9	0.025589	0.016219	-0.009138	0.013556
10	0.023443	0.018409	-0.013214	0.007098

Response of IN:

Period	LOG(EM)	IN	LOG(KR)	SB
1	0.184823	0.217433	0.000000	0.000000
2	0.176144	0.156040	-0.091975	0.042781
3	0.227142	0.247717	-0.088311	0.070160
4	0.227706	0.270345	-0.100341	0.035672
5	0.199003	0.306575	-0.162492	-0.068086
6	0.181196	0.243570	-0.149823	-0.115657
7	0.189756	0.279895	-0.197767	-0.095426
8	0.164682	0.312607	-0.267351	-0.227190
9	0.220999	0.349072	-0.346541	-0.277680
10	0.203600	0.348374	-0.389732	-0.322074

Response of
LOG(KR):

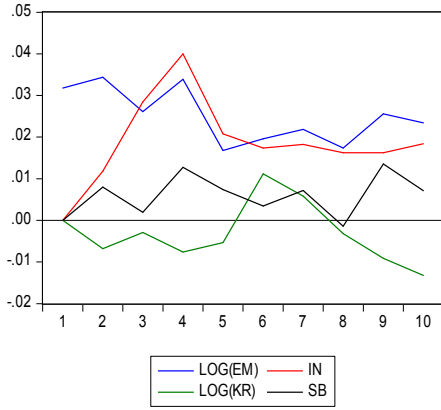
Period	LOG(EM)	IN	LOG(KR)	SB
1	-0.002232	-0.001764	0.006642	0.000000
2	-0.000963	-0.003736	0.007056	0.008261
3	-0.001244	-0.003476	0.007436	0.006863
4	-0.000931	-0.006288	0.008203	0.010383
5	-0.000959	-0.006844	0.009868	0.014142
6	-0.001617	-0.009656	0.013221	0.013217
7	-0.000218	-0.009937	0.013988	0.017724
8	-0.002597	-0.012368	0.016847	0.018751
9	-0.001807	-0.012682	0.018916	0.023854
10	-0.002947	-0.014982	0.020634	0.026585

Response of SB:

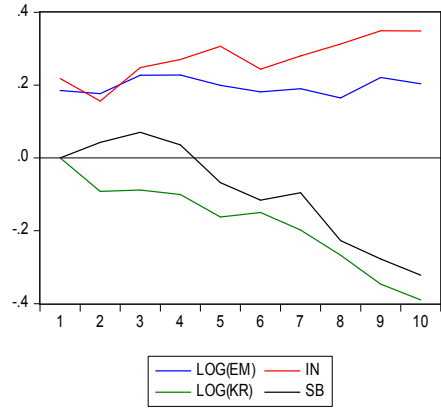
Period	LOG(EM)	IN	LOG(KR)	SB
1	0.057408	0.012128	0.048620	0.129467
2	0.081190	0.012952	0.094300	0.152581
3	0.091052	0.028591	0.129736	0.197089
4	0.074691	0.009377	0.185210	0.264969
5	0.047156	-0.026654	0.232943	0.350638
6	0.031395	-0.076890	0.271897	0.403961
7	0.030936	-0.141903	0.318371	0.441586
8	0.027855	-0.202553	0.364914	0.510817
9	0.030257	-0.231108	0.409252	0.569946
10	0.033810	-0.257099	0.437941	0.640277

Cholesky
Ordering:
LOG(EM) IN
LOG(KR) SB

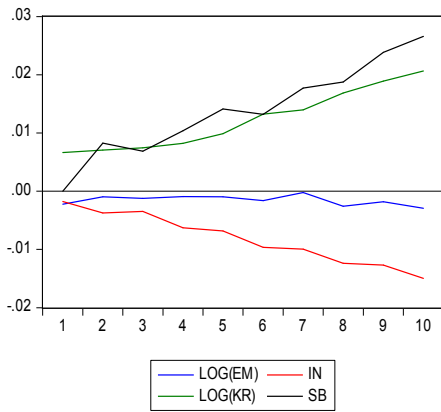
Response of LOG(EM) to Cholesky
One S.D. Innovations



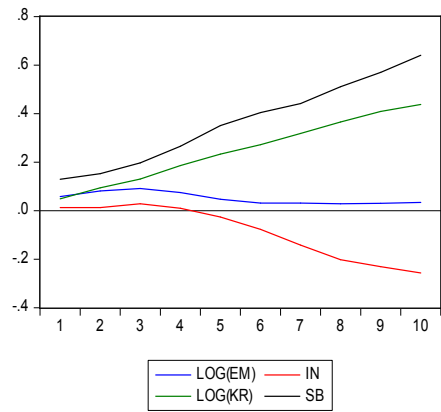
Response of IN to Cholesky
One S.D. Innovations



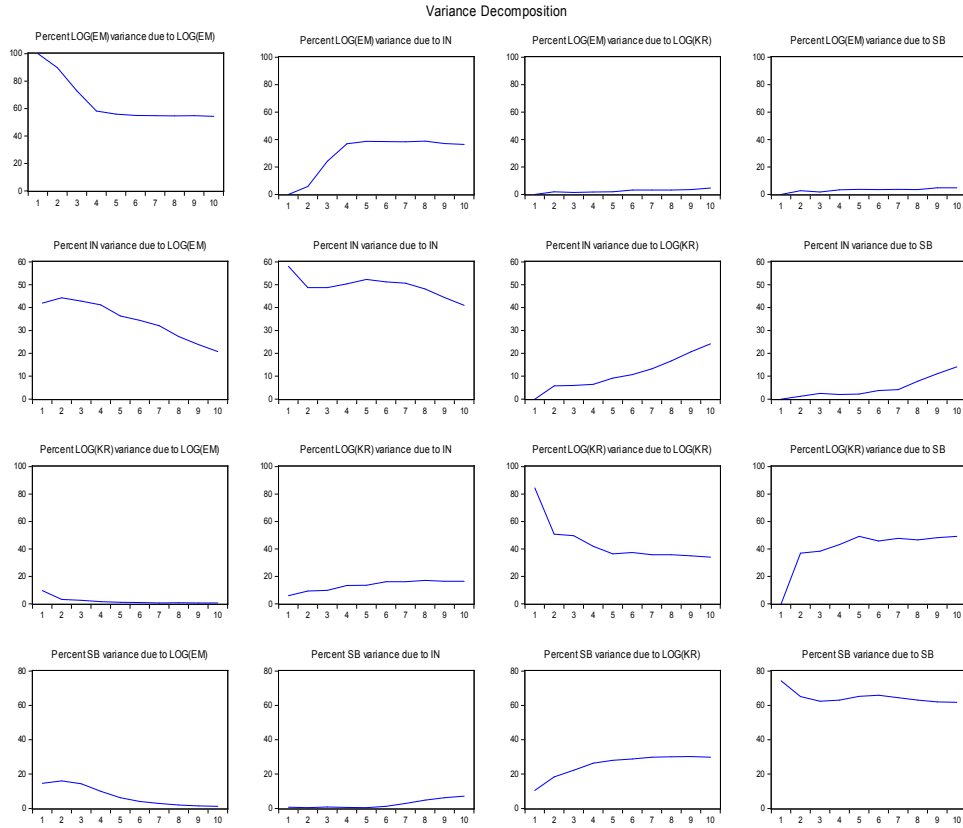
Response of LOG(KR) to Cholesky
One S.D. Innovations



Response of SB to Cholesky
One S.D. Innovations



VARIANCE DECOMPOSITION



Variance Decomposition of LOG(EM):

Period	S.E.	LOG(EM)	IN	LOG(KR)	SB
1	0.031781	100.0000	0.000000	0.000000	0.000000
2	0.049392	89.77042	5.711118	1.902120	2.616340
3	0.062786	72.84077	24.04653	1.396003	1.716697
4	0.083137	58.18181	36.85857	1.633325	3.326295
5	0.087797	55.81857	38.65258	1.837535	3.691319
6	0.092353	54.93531	38.47172	3.117279	3.475696
7	0.097086	54.78384	38.34580	3.179851	3.690518
8	0.100019	54.63592	38.76841	3.098605	3.497070
9	0.105778	54.70123	37.01319	3.516617	4.768968
10	0.110916	54.21755	36.41796	4.617656	4.746833

Variance

Decomposition
of IN:

Period	S.E.	LOG(EM)	IN	LOG(KR)	SB
1	0.285372	41.94617	58.05383	0.000000	0.000000
2	0.383539	44.31385	48.69119	5.750762	1.244201
3	0.522284	42.81103	48.75325	5.960213	2.475503
4	0.639576	41.22405	50.37816	6.435914	1.961874
5	0.757422	36.29714	52.30445	9.191479	2.206937
6	0.837657	34.35583	51.21932	10.71406	3.710795
7	0.929643	32.05971	50.64955	13.22431	4.066432
8	1.054595	27.35116	48.14499	16.70299	7.800865
9	1.216577	23.85255	44.41078	20.66513	11.07154
10	1.377861	20.77878	41.01504	24.11099	14.09519

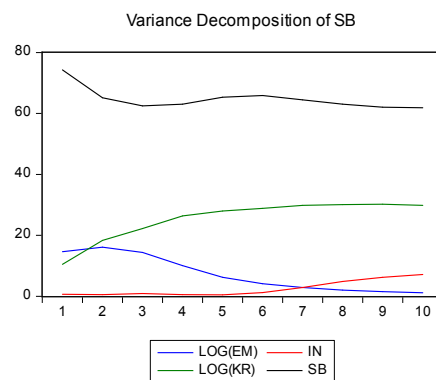
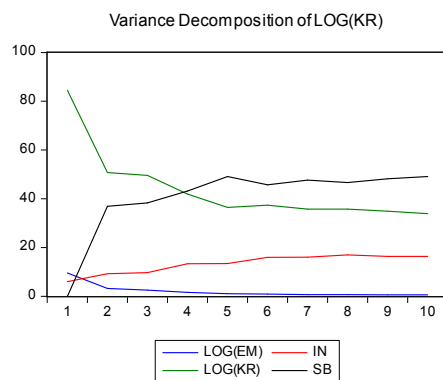
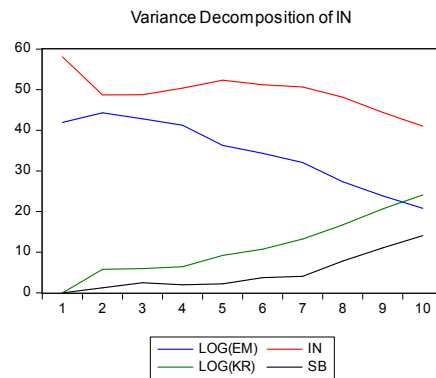
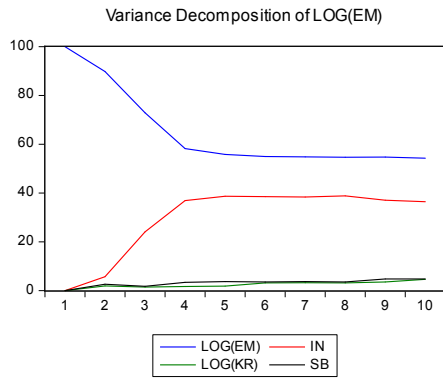
Variance
Decomposition
of LOG(KR):

Period	S.E.	LOG(EM)	IN	LOG(KR)	SB
1	0.007226	9.539100	5.960466	84.50043	0.000000
2	0.013606	3.190714	9.220720	50.72506	36.86350
3	0.017354	2.475751	9.679699	49.54241	38.30214
4	0.022730	1.610842	13.29588	41.90224	43.19105
5	0.029356	1.072358	13.40650	36.42076	49.10038
6	0.036154	0.906986	15.97163	37.38507	45.73632
7	0.043769	0.621322	16.05197	35.72207	47.60463
8	0.052066	0.687800	16.98621	35.71411	46.61188
9	0.061659	0.576327	16.34248	34.87791	48.20329
10	0.071885	0.592081	16.36693	33.89957	49.14142

Variance
Decomposition
of SB:

Period	S.E.	LOG(EM)	IN	LOG(KR)	SB
1	0.150227	14.60297	0.651759	10.47454	74.27074
2	0.247994	16.07696	0.511919	18.30262	65.10850
3	0.355366	14.39450	0.896621	22.24162	62.46725
4	0.486275	10.04673	0.516031	26.38492	63.05233
5	0.645451	6.236211	0.463420	28.00076	65.29961
6	0.812783	4.081956	1.187184	28.84898	65.88189
7	0.988973	2.854926	2.860645	29.84877	64.43566
8	1.189104	2.029681	4.880349	30.06458	63.02539
9	1.400222	1.510468	6.243822	30.22468	62.02103
10	1.621607	1.169667	7.169026	29.82890	61.83241

Cholesky
 Ordering:
 LOG(EM) IN
 LOG(KR) SB



Lampiran 8

TAHUN	EMISI (dalam milyar)	INFLASI	KURS	SBIS
Jan-16	16114	4,14%	13889	7,00%
Feb-16	16114	4,42%	13516	6,70%
Mar-16	16114	4,45%	13193	6,75%
Apr-16	16114	3,60%	13180	6,75%
Mei-16	16114	3,33%	13420	6,75%
Jun-16	18551	3,45%	13355	6,50%
Jul-16	18692	3,21%	13119	6,50%
Agu-16	18692	2,79%	13165	6,50%
Sep-16	18925	3,07%	13118	6,25%
Okt-16	18925	3,31%	13017	6,00%
Nov-16	20425	3,58%	13311	6,00%
Des-16	20425	3,02%	13418	6,00%
Jan-17	20425	3,49%	13359	6,01%
Feb-17	20425	3,83%	13341	6,01%
Mar-17	20426	3,61%	13346	6,05%
Apr-17	24973	4,17%	13306	6,06%
Mei-17	27093	4,33%	13323	6,07%
Jun-17	25573	4,37%	13298	6,08%
Jul-17	25573	3,88%	13342	6,02%
Agu-17	24441	3,82%	13342	5,60%
Sep-17	24441	3,72%	13303	5,26%
Okt-17	24741	3,58%	13526	5,30%
Nov-17	26285	3,30%	13527	5,27%
Des-17	26395	3,61%	13556	5,27%
Jan-18	25573	3,25%	13380	5,26%
Feb-18	27093	3,18%	13590	5,28%
Mar-18	27583	3,40%	13758	5,27%
Apr-18	27583	3,41%	13802	5,27%
Mei-18	28583	3,23%	14059	5,42%
Jun-18	29933	3,12%	14036	5,96%
Jul-18	30933	3,18%	14414	6,17%
Agu-18	30933	3,20%	14559	6,45%
Sep-18	33657	2,88%	14868	6,66%